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# MEAN WELL

## SWITCHING POWER SUPPLY

ISO-9001 CERTIFIED MANUFACTURER

## MPS-30 SERIES

**Jameco Part Number 221014 (MPS-30-27)**

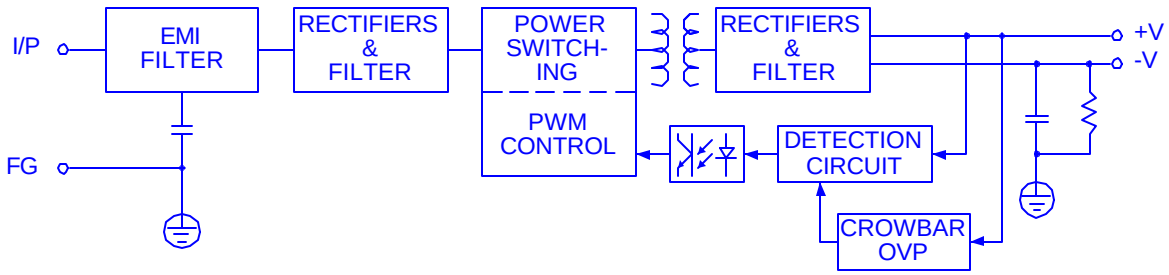
.LOW COST, HIGH RELIABILITY
.COMPACT SIZE, LIGHT WEIGHT
.105º C OUTPUT CAPACITOR
.100% FULL LOAD BURN-IN TEST
.INTERNATIONAL AC INPUT RANGE
.BUILT IN EMI FILTER, LOW RIPPLE NOISE
.HIGH EFFICIENCY, LOW WORKING TEMPERATURE
.MEDICAL APPLICATION
.SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
.SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE PROTECTED

| MODEL / SPECIFICATION | MPS-30-5 | MPS-30-12 | MPS-30-15 | MPS-30-24 | MPS-30-27 | MPS-30-48 |
|---|---|---|---|---|---|---|
| DC OUTPUT VOLTAGE | 5V | 12V | 15V | 24V | 27V | 48V |
| OUTPUT V. TOLERANCE | ±3% | ±3% | ±3% | ±3% | ±3% | ±2% |
| OUTPUT RATED CURRENT | 5A | 2.5A | 2A | 1.2A | 1.1A | 0.6A |
| OUTPUT CURRENT RANGE | 0-5A | 0-2.5A | 0-2A | 0-1.2A | 0-1.1A | 0-0.6A |
| RIPPLE & NOISE | 80mV | 120mV | 150mV | 240mV | 240mV | 240mV |
| LINE REGULATION | ±1% | ±1% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| LOAD REGULATION | ±2% | ±1% | ±1% | ±1% | ±1% | ±1% |
| DC OUTPUT POWER | 25W | 30W | 30W | 28.8W | 29.7W | 28.8W |
| EFFICIENCY | 72% | 75% | 76% | 77% | 78% | 78% |
| INPUT VOLTAGE RANGE | 88~264VAC 47~63Hz; 120~370VDC | | | | | |
| AC CURRENT | 0.8A/115V 0.5A/230V | | | | | |
| INRUSH CURRENT | COLD START 35A/230VAC | | | | | |
| LEAKAGE CURRENT | <0.3mA/264VAC | | | | | |
| OVERLOAD PROTECTION | ABOVE 105% TYPE:PULSING HICCUP SHUTDOWN RESET:AUTO RECOVERY | | | | | |
| OVER VOLTAGE PROTECTION | 110%~135% | | | | | |
| OVER TEMP. PROTECTION | U1 Tj 135º C TYPICALLY POWER SHUTDOWN | | | | | |
| TEMP. COEFFICIENT | ±0.03% / º C (0~50º C) | | | | | |
| SETUP, RISE, HOLD UP TIME | 500ms, 30ms, 10ms / 115VAC 500ms, 30ms, 50ms / 230VAC | | | | | |
| VIBRATION | 10~500Hz, 2G 10min./1cycle, PERIOD FOR 60min. EACH AXES | | | | | |
| WITHSTAND VOLTAGE | I/P-O/P:4KVAC, I/P-FG:1.5KVAC, O/P-FG:SHORT | | | | | |
| ISOLATION RESISTANCE | I/P-O/P, I/P-FG:500VDC / 100M Ohms | | | | | |
| WORKING TEMP., HUMIDITY | -10º C~+50º C, 20%~90% RH(REFER TO OUTPUT DERATING CURVE) | | | | | |
| STORAGE TEMP., HUMIDITY | -20º C~+85º C, 10%~95% RH | | | | | |
| DIMENSION | 101.6*65.8*25mm ONLY PCB | | | | | |
| WEIGHT | 150gs | | | | | |
| SAFETY STANDARDS | EN60601-1,IEC601-1,UL2601-1 APPROVED | | | | | |
| EMC STANDARDS | CISPR11, FCC CLASS B ,IEC61000-4-2,3,4,5,6,8,11 VERIFICATION | | | | | |

NOTE : 1.ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25º C 70% RH. AMBIENT.
2.RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.
3.LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.

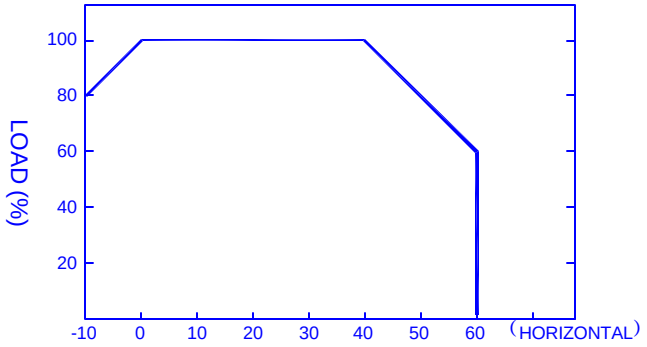
2002-04-18

## BLOCK DIAGRAM



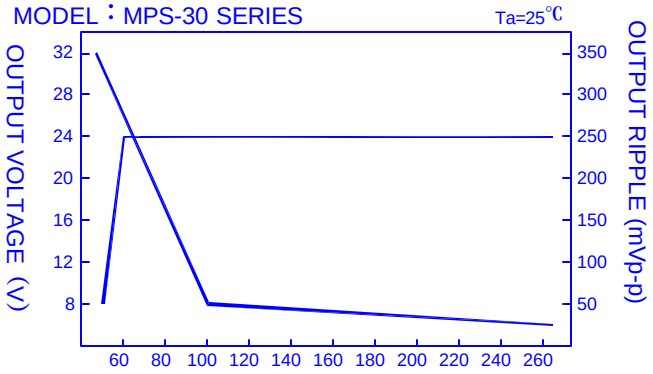

fosc:100KHz

## OUTPUT DERATING




AMBIENT TEMP. ( ℃ )

## STATIC CHARACTERISTICS




INPUT VOLTAGE (V) 60Hz

## DIMENSION (mm)

### ☒ CONNECTOR PIN NO. ASSIGNMENT

☒ CN1 : MOLEX 41791-5
PIN 1 : FG ⏚
PIN 3 : AC NEUTRAL
PIN 5 : AC LINE

☒ CN2 : MOLEX 41791-4
PIN 1,2 : DC OUTPUT COM
PIN 3,4 : DC OUTPUT V+

### ☒ MATING CONNECTORS

☒ CN1,2 MATING CONNECTOR TYPE MOLEX 2139 AND 3069 SERIES OR EQUIVALENT WITH MOLEX 2478 AND 2578 OR EQUIVALENT CRIMP TERMINALS